

# Work Order ID 86133

**\*86133\***

Page 1

June-21-12 8:36:48 AM

Item ID: D3778-1

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Bracket

Stop

**\*NS2\***

Start Date: 21/06/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 05/07/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/06/21

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3778	B								

100

0.00

**\*100\***

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3778

5057 090

Dwg Rev: 13

Prog Rev: 12

\*\*\*\*grain direction along 2.34" \*\*\*\*

2-Deburr if necessary

6 0 Jm 12-6-23

110

0.00

**\*110\***

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

6 0 Jm 12-6-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Page 2

Item ID: D3778-1

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Bracket

Stop **\*NS2\***

Start Date: 21/06/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 05/07/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00				6			<i>W 12 06 24</i>
130 <b>*130*</b> Brake NC Brake NC	Bend as per dwg NC BRAKE  Memo	0.00  0.00				6			<i>8 blocks 12/06/25</i>
140 <b>*140*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				6			<i>W 12 06 25</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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**NOTE:** Date & initial all entries

# Work Order ID 86133

June-21-12 8:36:48 AM

**\*86133\***

Page 3

Item ID: D3778-1

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Bracket

Stop **\*NS2\***

Start Date: 21/06/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 05/07/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*150*</b>									
HandFinish	Memo	0.00				6	76	126-25	
Hand Finishing									
155	QC7-Inspect Chemical Conversion Coat	0.00							
<b>*155*</b>									
QC	Memo	0.00				6	6	12-7-3	
Quality Control									
160	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3	0.00							
<b>*160*</b>									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 8:15								
	OVEN TEMPERATURE: 320 OF								
	FINISH TIME: 8:45								

M121279

6X ~~Ø~~ M-L 12/07/03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



# Picklist Print

June-21-12 8:36:51 AM

Page 1

Work Order ID: 86133

\*86133\*

Parent Item: D3778-1

\*D3778-1\*

Parent Item Name: Bracket

Start Date: 21/06/2012

Required Date: 05/07/2012

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A new issue 08-04-15 DD verified by:EC  
 IPP Rev:B 08-05-14 revA as per ECN1171 DD verified by:EC  
 IPP Rev:C 08-05-22 add powder coating DD verified by:ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M5052H32S.090		Purchased	No			100	sf	53.2800	0.0934	0.589895			
										**			
<div style="display: flex; justify-content: space-between;"> <span>*M5052H32S 090*</span> <span>Jun 12-6-23</span> </div>													
5052-H32 .090 Sheet													

Location	Loc Qty	Loc Code
MAT022	53.28	
118641	11.22	
121780	32	
3019	10.06	

3019

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



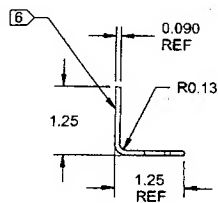
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

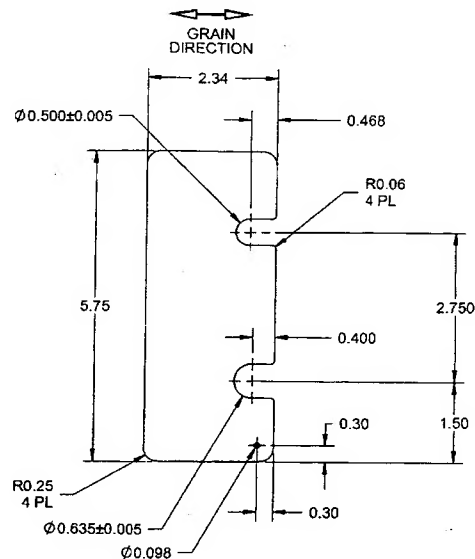
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3778-1 BRACKET**



**D3778-1F FLAT PATTERN**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 86133 MLT  
12/06/21

RELEASED  
2012-03-31

**NOTES:**

- 1) MATERIAL: 5052-H32 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32.090)  
OR  
6061-T6/T62 ALUMINUM SHEET, 0.090 THICK PER AMS-QQ-A-250/11 OR AMS 4025/4027 (REF DART SPEC M6061T60.090)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT BLACK SANTEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3778-X" AND B/N "BXXXXX"  
PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT -1: 0.11 lbs  
-3: 0.17 lbs

B	ADDED -3 (REF: PAR 12-163)	AJS	12.03.15
A	NEW ISSUE	PH	08.04.11
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3778	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	12.03.15	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR REPRODUCTION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

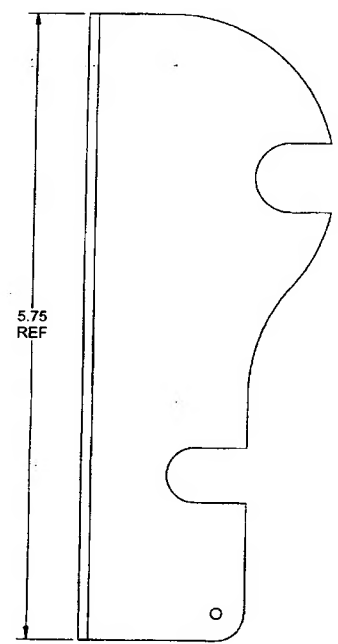
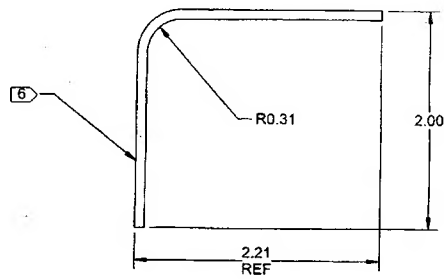
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

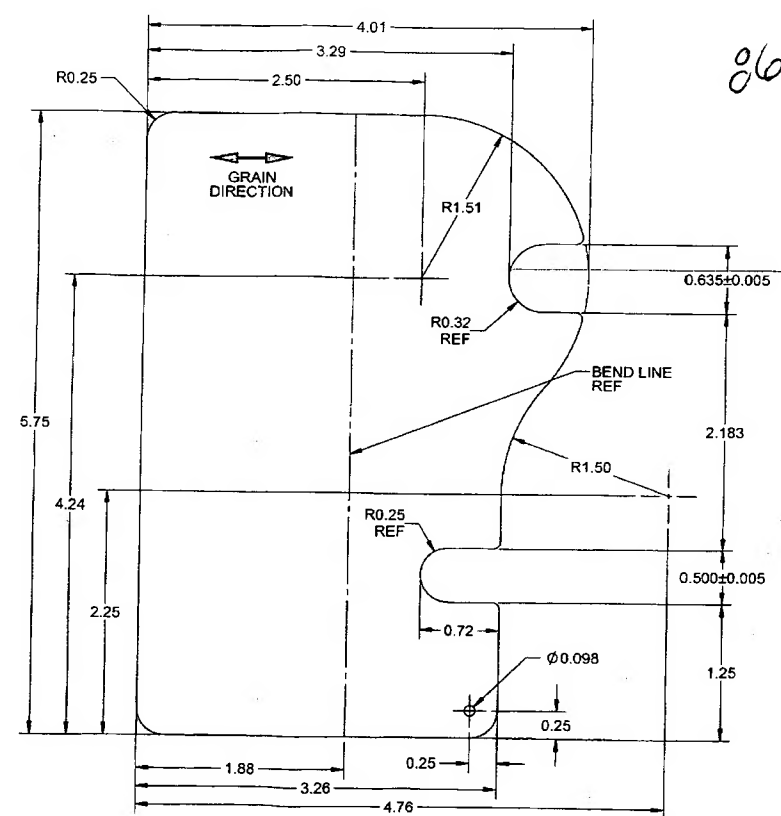
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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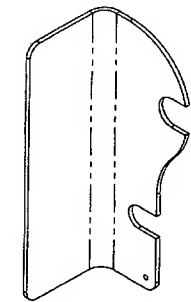


**D3778-3 BRACKET**



GRAIN  
DIRECTION

86133



RELEASED  
2012-03-30

**D3778-3F BRACKET**  
(FLAT PATTERN)

DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO. <b>D3778</b>	REV. B
MFG. APPR.		TITLE <b>BRACKET</b>	SHEET 2 OF 2
APPROVED			SCALE NTS
DE APPR.		COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries